

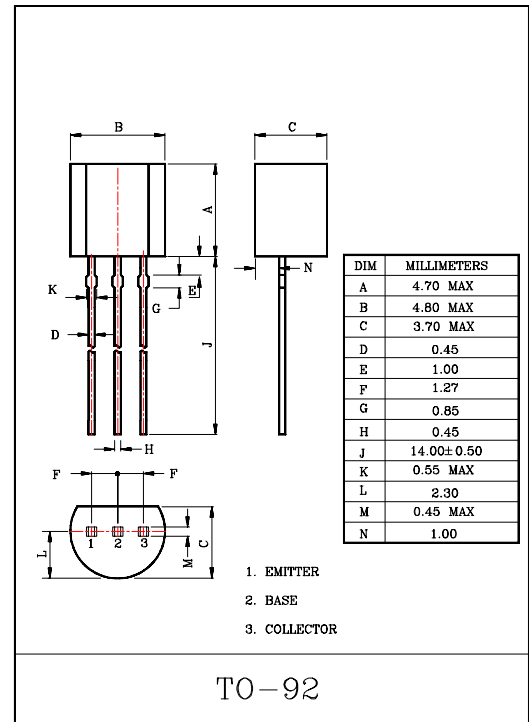
HIGH SPEED SWITCHING APPLICATION.

FEATURES

- High Frequency Characteristics
: $f_T=500\text{MHz}$ (Min.) ($V_{CE}=10\text{V}$, $f=100\text{MHz}$, $I_C=10\text{mA}$).
- Excellent Switching Characteristics.
- KTN2369/2369A Electrically Similar to 2N2369/2369A.

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CEO}	15	V
Emitter-Base Voltage	V_{EBO}	4.5	V
Collector Current	I_C	500	mA
Collector Power Dissipation ($T_a=25^\circ\text{C}$)	P_C	625	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	$-55\sim 150$	$^\circ\text{C}$



KTN2369/A

ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	$V_{CB}=20V, I_E=0$	–	–	0.4	μA
			$V_{CB}=20V, I_E=0, T_a=125^\circ C$	–	–	30	
Collector-Base Breakdown Voltage		$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	40	–	–	V
Collector-Emitter Breakdown Voltage *		$V_{(BR)CEO}$	$I_E=10mA, I_B=0$	15	–	–	
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	4.5	–	–	
DC Current Gain *	KTN2369	h_{FE}	$I_C=10mA, V_{CE}=1.0V$	40	–	120	
	KTN2369A			–	–	120	
	KTN2369		$I_C=10mA, V_{CE}=1.0V, T_a=-55^\circ C$	20	–	–	
	KTN2369A		$I_C=10mA, V_{CE}=0.35V, T_a=-55^\circ C$	20	–	–	
	KTN2369		$I_C=100mA, V_{CE}=2.0V$	20	–	–	
	KTN2369A		$I_C=100mA, V_{CE}=1.0V$	20	–	–	
Collector-Emitter Saturation Voltage *		$V_{CE(sat)}$	$I_C=10mA, I_B=1.0mA$	–	–	0.25	V
Base-Emitter Saturation Voltage *		$V_{BE(sat)}$	$I_C=10mA, I_B=1.0mA$	0.70	–	0.85	V
Transition Frequency		f_T	$I_C=10mA, V_{CE}=10V, f=100MHz$	500	–	–	MHz
Collector Output Capacitance		C_{ob}	$V_{CB}=5.0V, I_E=0, f=1.0MHz$	–	–	4.0	pF
Storage Time	KTN2369A	T_{stg}	$I_C=100mA, I_{B1}=-I_{B2}=10mA, V_{CC}=10V$	–	–	13	nS
Turn-on Time		t_{on}	$V_{CC}=3.0V, I_C=10mA, I_{B1}=3.0mA, I_{B2}=-1.5mA$	–	–	12	
Turn-off Time	KTN2369A	t_{off}	$I_C=10mA, I_{B1}=3.0mA, I_{B2}=-1.5mA, V_{CC}=3.0V$	–	–	15	

Note : *Pulse Test : Pulse Width $\leq 300\mu S$, Duty Cycle $\leq 2.0\%$